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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/555,320	11/03/2005	Zheng Dai	280163US3PCT	9074

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EXAMINER	
WILLIAMS, ARUN C	

ART UNIT	PAPER NUMBER
2838	

NOTIFICATION DATE	DELIVERY MODE
08/01/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/555,320

Applicant(s)

DAI ET AL.

Examiner

Arun Williams

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/03/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/03/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the claimed invention clearly as described in the specification as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the

Art Unit: 2838

applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. Claim 4 recites the limitation "forward power flow" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-5,8,9, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Takehara et al, (Takehara), US 2002/0067628.**

As for claim 1,8, Takehara discloses and shows in Fig. 1 A power supply apparatus comprising: a inverter (14) (applicant's system linkage inverter) that converts DC to AC electrical power and supply the AC electrical power to the connection terminal(11)(applicant's load) connect to a commercial power system (2) (applicant's system power supply); a load (4) (applicant's dummy load) connected parallel to said load through power relay(18) (applicant's power device)(pg.1, par.[0009]); a circuit(16) connected to load and system to detect voltage and current; a controller (15) (applicant's calculating unit and control unit) for calculating and controlling the power flow of the load (4) (pg.1, par. [0011]).

Art Unit: 2838

As for claims 2, 5, and 9, Takehara discloses detecting the voltage, current, and power into and out of the commercial power system (applicant's system power supply) system to the connection terminal (11) (load); calculations of the power respect to constant periods is implied (pg.1, par.[0009])

As for claims 3 and 13, Takehara discloses a load (4) being turned on based on being set to be performed at preset power value (pg.2, par.[0034]).

As for claim 4, Takehara discloses the amount of power that's being delivered is reversed when the load is turned on (pg.3, par.[0042]).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takehara in view of Suzui et al,(Suzui), US 2002/0085397.

Takehara differs from the claimed invention because he does not explicitly disclose a power device comprising a thyristor(pg.3, par.[0050]).

Suzui discloses and shows in Fig. 1 discloses converter section (27) (applicant's power device) being a thyristor.

Suzui is evidence that ordinary skill in the art would find a reason, suggestion or motivation to use a thyristor.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Takehara by using a thyristor for advantages such as providing appropriate operation (pg.1, par.[0006]), as taught by Suzui.

10. Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takehara in view of Ragsdale, (Ragsdale), USPAT 5,280,404.

Takehara differs from the claimed invention because he does not explicitly disclose the power device comprising an SSR and filter between the power device and dummy load.

Ragsdale shows in Fig. 1 an SSR (22)(applicant's power device) wherein it being between a load (applicant's dummy load) and filter (15).

Ragsdale is evidence that ordinary skill in the art would find a reason, suggestion or motivation to use SSR and have a filter between the power device and dummy load.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Takehara by using SSR and have a filter between the power device and dummy load for advantages such as providing the convenience of operating in a noisy environment (col.2, line 26), as taught by Ragsdale.

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takehara in view of Madenokouji et al,(Madenokouji), USPAT 6,046,919

Takehara differs from the claimed invention because he does not explicitly disclose a storage unit.

Madenokouji discloses and shows in Fig. 1 an EEPROM (44) (applicant's storage unit) (col.9, lines 38-50).

Madenokouji is evidence that ordinary skill in the art would find a reason, suggestion or motivation to use a storage unit.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Takehara by using a storage unit for advantages such as providing data to be electrical read (col.9, line 45), as taught by Madenokouji.

12. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takehara in view of Sarin,(Sarin), USPAT 5,838,947.

Art Unit: 2838

Takehara differs from the claimed invention because he does not explicitly disclose outputting data of an electric power value from the calculating unit to an external apparatus.

Sarin discloses and shows in Fig. 7 outputting data of an electric power value from the an engine (232) (calculating unit) to an PWG display (246) (external apparatus)(col.8, lines 41-64).

Sarin is evidence that ordinary skill in the art would find a reason, suggestion or motivation to output data of an electric power value from the calculating unit to an external apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Takehara by outputting data of an electric power value from the calculating unit to an external apparatus for advantages such as the ability to model and characterize power behavior (col.2, line 10),as taught by Sarin .

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPAT 6,219,623 discloses a method and apparatus for reliably protecting against island situations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun Williams whose telephone number is 571-272-9765. The examiner can normally be reached on Mon - Thrus 6:30am - 5pm.

Art Unit: 2838

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Arun Williams
Examiner
Art Unit 2838

AW



KARL EASTHOM
SUPERVISORY PATENT EXAMINER